Amendment and Reply to Office action of July 7, 2004

Amendments to the Drawings: attached are 12 replacement sheets with proper margins, containing FIGS 1A-8.

Attachment: replacement sheets

Amendment and Reply to Office action of July 7, 2004

**Remarks/Arguments** 

In the Specification:

The Abstract has been amended to correct editorial problems that were pointed

out in the Office action. Paragraph [0097] has been amended to correct minor

editorial problems, such as confusion between the letter "D" and the delta symbol

(" $\Delta$ "). No new matter has been added. As to other objections to the specification

(Office action page 4), it is requested that objections or requirements as to form,

not necessary to further consideration of the claims, be held in abeyance until

allowable subject matter is indicated.

Amendments to the specification were discussed with Examiner Robert Stevens

and Supervisory Patent Examiner Joseph Feild in the telephone interview of

September 27, 2004. Also discussed were claim amendments, and questions

concerning the prima facie case of nonstatutory subject matter, and the prima

facie case of obviousness (see Errors in Rejection below).

In the Claims:

Claim 1 is amended in response to multiple rejections. The amendment adds a

description (found in paragraph 61 of the specification) of "boolean variable,"

which is not described or suggested in the references relied upon by the Office.

The amendment should remove any doubt that Claim 1 has allowable subject

matter.

Claim 8 is amended in response to multiple rejections. Claim 8 is amended to add

details from the specification that reflect details of Claim 1. The amendment

Page 9

Amendment and Reply to Office action of July 7, 2004

should remove any doubt that Claim 8 has allowable subject matter.

Several claims are amended with minor editorial changes in response to the Office action. There is an amendment to clarify Claim 7's dependency.

## **Errors in Rejection**

The assignee respectfully asserts that:

- 1. It was erroneous to reject claims under 35 U.S.C. 101, as being directed to nonstatutory subject matter. A prima facie case of nonstatutory subject matter has not been established.
- 2. It was erroneous to reject Claims 1-9, under 35 U.S.C. 103, over Blood's spreadsheet sum\_if, in view of Shaw and other references. A prima facie case of obviousness has not been established.

## 1. Argument regarding 35 U.S.C. 101 and statutory subject matter.

The proper standard for patentable subject matter in computer-related inventions is stated in MPEP 2106 II. A .: "The claimed invention as a whole must accomplish a practical application. That is, it must produce a 'useful, concrete and tangible result.... Office personnel have the burden to establish a prima facie case that the claimed invention as a whole is directed to solely an abstract idea or to manipulation of abstract ideas or does not produce a useful result."

It is clear that a useful, concrete and tangible result is produced by the rejected claims, when these claims are read in light of the specification. In the present patent application, the Office cannot show that the claimed invention as a whole is directed to solely an abstract idea, or to manipulation of abstract ideas, or does

Amendment and Reply to Office action of July 7, 2004

not produce a useful result. Thus the Office has not satisfied its burden to establish a prima facie case of nonstatutory subject matter. The Office action at Page 5 appears to assert that method claims need to contain certain physical limitations, that name some technological apparatus. This is not supported by the MPEP or case law.

Argument regarding 35 U.S.C. 103 and lack of a prima facie case of obviousness: As stated in MPEP 2142: "The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness." As stated in MPEP 2143 and 2143.03, a requirement for establishing a prima facie case of obviousness is that the reference or references must teach or suggest all the claim limitations.

A. Limitations in the Rejected Claims Which Are Not Described in the References Relied On:

The following language from Claim 1 provides examples: "defining one or a plurality of combinations, each combination comprising one or a plurality of options; ... computing the content of each cell within the source cell range according to said one or plurality of options ...."

Concerning "options," consider an example from the specification of the subject patent application (Page 16, or Paragraph 61 of the published version).

An option is defined as a boolean variable, which can be set as "True" or "False" and which may impact the content of any given cell within an electronic spreadsheet .... For instance the formula "\$baseprice \*(1-10%\*\$discount)" refers ... to a named range "discount" which is also

Amendment and Reply to Office action of July 7, 2004

defined as an option according to the present invention. In this example, ... when the option "discount" is "true" (with option value "true" conventionally set to 1), the formula results in a value equal to the value of the named range "baseprice", decreased by 10%.

Nothing like this is described in the references the Office action relies on (Blood's spreadsheet *sum\_if*, and Shaw).

B. Why the References, Taken as a Whole, Do Not Suggest the Claimed Subject Matter:

The cited references do not suggest a solution involving above-quoted subject matter of rejected Claim 1 for example. Blood's spreadsheet *sum\_if* contains so little information that it does not suggest anything beyond the one solution that is shown. The cited material from Shaw does not suggest anything concerning above-quoted subject matter of rejected Claim 1.

C. Differences Between the References, and the Claimed Invention as a Whole: As quoted in MPEP 2141.02, a "patentable invention may lie in the discovery of the source of a problem .... This is part of the 'subject matter as a whole' which should always be considered in determining the obviousness of an invention under 35 U.S.C. 103." (Citing *In re Sponnoble*). The specification (Pages 15-16, or Paragraph 59 of the published version) points out a problem: "With conventional electronic spreadsheet tools... When multiple independent conditions have to be taken into account for running the "what-if" scenario, the resulting number of versions to be defined varies exponentially with the number of conditions. ...even with a small number of conditions, there is a quite larger

Amendment and Reply to Office action of July 7, 2004

number of combinations, which can easily reach the limit of the spreadsheet." The specification (Pages 15-16, or Paragraph 60 of the published version) points out another problem: "When the spreadsheet user has to perform a copy and paste or a cut and paste operation ... conventional tools present severe limitations if the destination range belongs to a context where the user-defined options applied to the source range are not visible." (This problem is also explained in the specification at Page 6, or Paragraph 13 of the published version. Solutions are introduced at Pages 16 and 30, or Paragraphs 60 and 133 of the published version.) Here are sources of problems; the references the Office action relies on (Blood's spreadsheet  $sum_if$ , and Shaw) do not identify the problems. This should be considered as evidence of nonobviousness.

## Rejected Claims 2-9 are not separately argued.

The points made above, concerning Claim 1, also apply to Claims 2-9, which depend upon Claim 1. Thus a prima facie case of obviousness has not been established.

Assignee respectfully submits that the rejection of Claims 1-9 should be withdrawn, and requests that a timely Notice of Allowance be issued in this case.

Amendment and Reply to Office action of July 7, 2004

Respectfully submitted,

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**Attachments**